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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,396	04/22/2005	Toru Sasaki	SONYJP 3.3-1032	1596

530 7590 04/18/2007
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EXAMINER

LEE, PING

ART UNIT	PAPER NUMBER
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2615

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/18/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/532,396

Applicant(s)

SASAKI, TORU

Examiner

Ping Lee

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-11 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The newly added limitation "a plurality of cabinets each having an opening portion only in front thereof" is not fully supported by the specification as originally filed. There is no text in the specification specifically limit the "opening portion only in front thereof". As shown in Fig. 14, there is a front opening and a back opening connected to element 47. Although Fig. 9 only shows a front opening, one skilled in the art would have questioned about the location of the electric wire. Could it be presented as the one shown in Fig. 14?

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP3-106298 (hereafter '298) in view of Parker (US 2,632,055).

Regarding claims 1, 11, '298 discloses an array speaker apparatus comprising:

a plurality of speaker units (12s);

a plurality of cabinets (11 as shown in Fig. 1) and each adapted for accommodating one of the plurality of speaker units so that vibration plates of the plurality of speaker units are located at an internal side thereof relative to an end surface of the opening portions of the plurality of cabinets; and

a projection screen (14) serving as a sound transmission screen for displaying a projected image,

wherein the plurality of cabinets are arranged so that the end surface of the opening portions thereof are flush with each other, and adjacent cabinets are arranged in close contact with each other, and

the projection screen is attached in a state substantially in contact with the end surface of the opening portions.

'298 fails to show the cabinets each having an opening portion only in front thereof. The cabinets as shown in '298 were one type of cabinet design for housing the speaker. One skilled in the art would have recognized that there were several different kinds of cabinet designs available. Parker teaches how to use relative small speakers each enclosed in a small cabinet to provide smooth low frequency response. As shown in Fig. 3 or 4 of Parker, this is a closed-back design to allow the sound to be reproduced in forward direction only. Since Parker's system uses small speakers, the system would

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fit well with the projection screen in '298. Thus, it would have been obvious to one of ordinary skill in the art to modify '298 by using the speaker cabinet design as taught in Parker in order to improve the low frequency response.

Regarding claims 3-6, the claimed buffer materials read on the air between the screen (14) and the opening portion of the cabinets.

Regarding claim 7, Figs. 1b and 2 show the frame (11).

5. Claims 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over '298 in view of Parker as applied to claim 1 above, and further in view of JP 5-199576 A (hereafter '576).

Regarding claim 8, '298 fails to show power amplifiers. However, one skilled in the art would have recognized that the speakers require power amplifiers to generate the drive signal. '298 discloses a speaker layout without providing any accompanying circuitry. One skilled in the art would have expected that any well known speaker driving circuit could be used without generating any unexpected result. '576 teaches such a driving circuit with a power amplifier. Thus, it would have been obvious to one of ordinary skill in the art to modify '298 and Parker by utilizing the amplifier as taught in '576 in order to drive the speaker properly.

6. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over '298 in view of Parker as applied to claims 1 and 6 above, and further in view of JP 5-244550 A (hereafter '550).

Regarding claims 8-10, '298 fails to show a directivity formation circuit. '298 discloses speaker layout without providing any accompanying circuitry. One skilled in

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the art would have expected that any well known speaker driving circuit could be used without generating any unexpected result. '550 teaches such a driving circuit with power amplifiers and filter circuits. Thus, it would have been obvious to one of ordinary skill in the art to modify '298 and Parker by utilizing the driving circuit as taught in '550 in order to drive the speaker properly.

Response to Arguments

7. Applicant's arguments with respect to claims 1 and 11 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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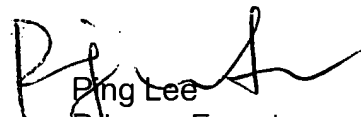
the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ping Lee whose telephone number is 571-272-7522.

The examiner can normally be reached on Monday, Wednesday and Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian C. Chin can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Ping Lee
Primary Examiner
Art Unit 2615

pwl